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APPLETREE Highlights: Strengthening State Capacity to Protect Community Health

Editor's Note: As part of our continued effort to highlight innovative approaches to improve the health and environment of communities, the *Journal* is pleased to publish regular columns from the Agency for Toxic Substances and Disease Registry (ATSDR) at the Centers for Disease Control and Prevention (CDC). ATSDR serves the public by using the best science, taking responsive public health actions, and providing trusted health information to prevent harmful exposures and diseases related to toxic substances. The purpose of this column is to inform readers of ATSDR's activities and initiatives to better understand the relationship between exposure to hazardous substances in the environment, its impact on human health, and how to protect public health.

The findings and conclusions in this column are those of the authors and do not necessarily represent the views of ATSDR and or CDC.

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Communities across the U.S. continue to face evolving and complex environmental hazards, ranging from legacy pollutants (e.g., lead) to emerging contaminants (e.g., per- and polyfluoroalkyl substances [PFAS]). The risks associated with these hazards underscore the crucial role of public health agencies and the need for strong state and local capacity to prevent harmful exposures and protect community

health. The Agency for Toxic Substances and Disease Registry (ATSDR) is a public health agency that protects communities from the harmful health effects of exposure to hazardous substances. ATSDR works closely with state and local partners to strengthen their capacity to assess and respond to environmental health threats (Li et al., 2025).

Since 1987, ATSDR's Partnership to Promote Local Efforts to Reduce Environmen-

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tal Exposure (APPLETREE) cooperative agreement has been a flagship program for building this capacity. In the current funding cycle (2023–2028), the APPLETREE program supports 30 state health departments in addressing public health issues related to hazardous substance exposures (Agency for Toxic Substances and Disease Registry [ATSDR], 2024; Henry & Cowins, 2023). This column highlights the program's activities and accomplishments over the past year (Figure 1).

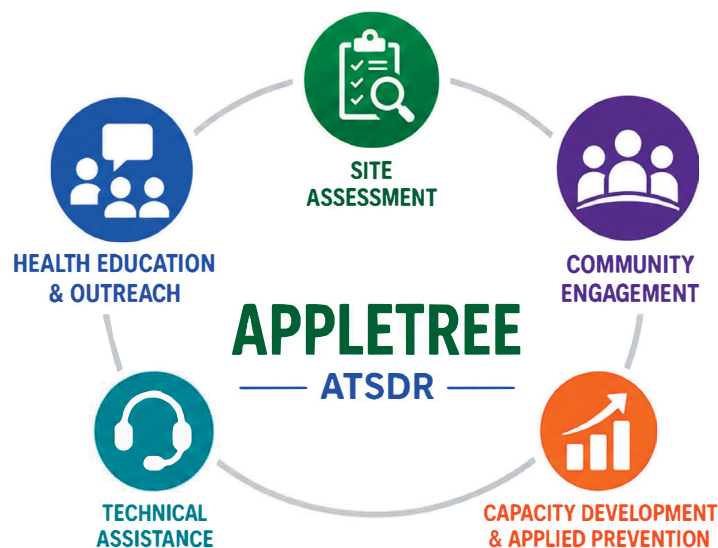
Site Assessment and Community Engagement

The primary objective of the APPLETREE program is to assess and prevent harmful environmental exposures and related health effects. This objective is achieved through the program's core activities, site assessment and community engagement, which include:

- Conducting site-specific health assessments and providing recommendations to prevent, reduce, or eliminate harmful exposures
- Educating the community, partners, and health professionals on site-related exposures and health risks

FIGURE 1

Overview of ATSDR's Partnership to Promote Local Efforts to Reduce Environmental Exposure (APPLETREE) Program Activities and Accomplishments Over the Past Year



BY THE NUMBER (PAST YEAR)



Note. ATSDR = Agency for Toxic Substances and Disease Registry; soilSHOP = Soil Screening, Health, Outreach, and Partnership.

- Identifying, developing, and maintaining partner and interested party relationships to support these activities

Through these activities, ATSDR and APPLETREE partners execute the public health assessment process to determine if people living near a hazardous waste site are being harmfully exposed to toxic substances and what must be done to stop or reduce that exposure (ATSDR, 2025; Ulirsch & Li, 2022). During the past year, APPLETREE states conducted assessments on a wide range of sites and released approximately 25 reports, including health consultations, letter health consultations, and public health assessments. These assessments served as a critical evidence base to guide local-level public health interventions, such as fish consumption advisories for contaminated

water bodies and recommendations to mitigate vapor intrusion at redevelopment sites.

Beyond site assessments, state partners also conducted community soil screening activities during Soil Screening, Health, Outreach, and Partnership (soilSHOP) events (ATSDR, 2026; Berman et al., 2025). During the past year, state partners organized more than 25 soilSHOP events, screened more than 500 soil samples, and provided actionable advice and resources to communities.

APPLETREE state programs serve as critical environmental health experts, responding to a high volume of requests from local health departments, state regulatory agencies, and community members in their jurisdictions. Over the past year, funded states provided more than 1,200 technical

assistance responses that addressed a range of environmental health concerns, such as heavy metal contamination.

Further, last year, APPLETREE states conducted more than 400 health education and community involvement activities through outreach events, community trainings, and direct communication. Programs also expanded their reach through various outreach strategies, including targeted website content, social media campaigns, and coordinated partner messaging. Educational efforts consistently focused on locally relevant concerns, with PFAS contamination, lead exposure, safe fish consumption, and clean private well water among the most common topics.

Success Stories Demonstrating Local Impact

The following examples highlight how APPLETREE-funded state health departments assessed site-related exposures and mitigated environmental threats to protect health.

Connecticut: Addressing Vapor Intrusion

In 2024, the Connecticut Department of Energy and Environmental Protection referred a newly discovered tetrachloroethylene (PCE) groundwater plume to health officials. In response, the Connecticut Department of Public Health evaluated indoor air data from 26 residences, a school, and a church, focusing on chemical compounds associated with dry-cleaning operations. Vapor intrusion mitigation systems were installed at households where PCE concentrations exceeded state target levels. During a 2025 public meeting, the Connecticut APPLETREE program presented assessment findings and toxicological information to residents and local officials, helping clarify potential health effects and alleviate community concern. Residents gained a better understanding of potential risks, and local health officials were better equipped to respond to community concerns.

Ohio: Preventing Lead Exposure

A local health district requested that the Ohio Department of Health evaluate health risks associated with lead and metal emissions from a historic steel facility. The Ohio APPLETREE team conducted a health consultation using air monitoring data and engaged residents through surveys and public meetings. Although the facility closure

in 2023 eliminated air emissions affecting approximately 7,000 residents, the assessment identified legacy lead-contaminated soil as an ongoing exposure pathway. The Ohio APPLETREE program then issued recommendations to reduce exposure to lead from gardens, play areas, and household dust, and advised blood lead testing for children under 5 years. The program also provided educational fact sheets and health advice, with actionable strategies to protect the community from lingering lead hazards.

Utah: Mitigating Radon Exposure in Schools

The Utah Department of Health and Human Services addressed indoor radon risks at a school after facility staff attended an APPLETREE webinar and requested environmental testing. Partnering with the state radon coordinator, the Utah APPLETREE program deployed 20 test kits across classrooms and offices to evaluate radon exposure during school hours. Results indicated that nearly one half of the tested areas exceeded the U.S. Environmental Protection Agency (U.S. EPA) action level, driven largely by poor ventilation in specific rooms. To mitigate these risks, APPLETREE health officials provided continuous monitors and collaborated with the school's maintenance crew to optimize HVAC airflow. This targeted intervention lowered radon concentrations below the U.S. EPA action level, providing a safer indoor environment for students and staff.

Capacity Development and Applied Prevention Science

Beyond the core activities, the APPLETREE program includes an optional component: capacity development and applied prevention science. This component strengthens community health resilience by translating environmental science into practical tools that help individuals, communities, and organizations identify, prevent, and mitigate hazardous exposures. Currently, eight APPLETREE recipients receive funding for this compo-

ment, each taking a unique approach tailored to the specific needs of their communities.

For example, the Georgia Department of Public Health is creating practical risk reduction strategies for communities vulnerable to specific environmental exposures. In collaboration with a university partner and local leaders, the Georgia APPLETREE program helped develop a community-focused website (<https://smartseafoodglynnc.com/>) that promotes safe seafood consumption. This platform provides tailored educational materials to help residents reduce their exposure to potential toxins in local waterways.

Similarly, the Oregon Health Authority has prioritized children's environmental health through sustained engagement with community-based organizations. Partnering with a nonprofit organization, the Oregon APPLETREE program designed and implemented initiatives to prevent childhood exposures to harmful chemicals in homes and public spaces. The program focuses on community-led processes to achieve practical and sustainable exposure prevention outcomes.

Conclusion

Over nearly four decades, the APPLETREE program has played a crucial role in building state capacity to address environmental health threats. The examples in this column illustrate how the program strengthens environmental health capacity, supports public health practices, adapts to evolving environmental challenges, and helps states prevent harmful exposures and protect community health. By supporting capacity development and prevention science targeted at local issues, the APPLETREE program gives state health departments tools and strategies to identify, reduce, and prevent hazardous exposures. This collaborative approach enhances the program's overall reach and positive impact on community health. 🌸

Acknowledgment: The authors thank all the state partners for their strong collaboration and dedication to protecting community health.

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We are excited to announce that the application portal for the NEHA-FDA Retail Flexible Funding Model (RFFM) Grant Program will open on December 9 for the 2027–2028 grant year. Learn more at www.neha.org/retail-grants.